IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Steven J. LOCKE and Devanand PINTO

Title: QUANTITATIVE ANALYSIS VIA ISOTOPICALLY DIFFERENTIATED DERIVATIZATION

Appl. No.: 10/621,958

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Art Unit: 1641

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CERTIFICATE OF ELECTRONIC TRANSMISSION
I hereby certify that this paper is being electronically transmitted to the United States Patent and Trademark Office, Alexandria, Virginia via EFS-Web on the date below.

Sylvia L. Castillo
(Printed Name)

(Signature)

December 18, 2007
(Date of Transmission)

AMENDMENT AND REPLY UNDER 37 CFR 1.111

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This communication is responsive to the Non-Final Office Action dated July 18, 2007, concerning the above-referenced patent application. The Action set a 3-month period to reply. This Amendment, together with a 2-month extension of time, is timely filed on or before its due date of December 18, 2007.

Amendments to the Specification are reflected on page 2 of this document.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this document.

Remarks/Arguments begin on page 8 of this document.

Amendments to the Specification:

Please replace paragraph [00126] with the following:

[00126] Various amines, shown as Compounds in Table 2, were labelled with either CH_2O or CD_2O and reduced with sodium cyanoborohydride or sodium cyanoborodeuteride in acetonitrile which contained 10% (v/v) acetic acid or acetic acid d_4. Various amounts of each labelled amine ~~sample~~ were mixed and analysed by LC-MS. No digestion was required, as the labelled amines ~~molecules~~ were small. The MS used was a triple-quadrupole instrument (API III+) with an IonSpray™ Source ~~source~~ operated in the positive-ion mode. Table 2 provides the details of the analysis. Column 1 lists the names of the amines that were labelled. Column 2 lists the mass of the protonated pseudo-molecular ion. Columns 3 and 4 list the amount of differentially labelled amine combined for the analysis. Columns 5 and 6 list the expected and experimentally determined ratios, respectively. Finally, column 7 lists the calculated percent error. FIG. 8 shows the molecular structure of the amines. The lower panel shows the mass spectrum of 3-aminothiophenol labelled with CH_2O (m/z=123.0) and CD_2O (m/z=127.0) and $NaCNBH_3$. The expected ratio of intensities was 1.07 and the observed ratio was 1.10, corresponding to an error of 2.7%.